WHAT IS CLAIMED IS:

1. A method for reducing nitrogen oxides in an exhaust of a motor vehicle by reduction on a catalyst with the addition of hydrogen, the method comprising the steps of:

generating the hydrogen required for nitrogen oxide reduction on-board the motor vehicle via water vapor reformation and/or by partial oxidation of hydrocarbons; and

adjustably heating the catalyst for water vapor reformation or for partial oxidation.

2. The method according to claim 1, wherein the hydrocarbons include methanol, diesel fuel, and gasoline on a catalyst.

3. The method according to claim 1, further comprising the step of obtaining the hydrogen by a mixed reaction from water vapor reformation and partial oxidation.

4. The method according to claim 1, further comprising the step of aftertreating reaction gases obtained during the hydrogen generating step.

5. The method according to claim 3, further comprising the step of after treating reaction gases obtained during the hydrogen generating step.

6. The method according to claim 4, wherein the step of aftertreating includes performing a water vapor shift reaction.

7. A device for reducing nitrogen oxides in an exhaust of a motor vehicle via a catalytic reduction, comprising:

a reactor containing a catalyst on which the nitrogen oxide reduction is performed via the addition of hydrogen;

a device arranged on-board said motor vehicle for generating hydrogen, said device including at least one of a reactor for water vapor reformation of hydrocarbons on a catalyst and a reactor for partial oxidation of hydrocarbons on the catalyst;

an adjustable heating device coupled with at least one of the reactor for water vapor reformation and the reactor for partial oxidation.

8. The device according to claim 7, wherein said adjustable heating device is an electrical heater.

9. The device according to claim 8, wherein the electrical heater is at least one of a resistance heater and a heating cartridge.

10. The device according to claim 7, wherein said catalyst in the reactor contains one of copper and zinc as active components for water vapor reformation.

11. The device according to claim 7, wherein the reactor further comprises an evaporator stage for water vapor reformation, said evaporator stage being located upstream from a main reaction stage in which the water vapor reformation on the catalyst occurs.

12. The device according to claim 7, further comprising an aftertreatment stage located in said reactor for water vapor reformation downstream from a main reaction stage in which the water vapor reformation on said catalyst occurs,

wherein in said aftertreatment stage one of a resultant CO is reduced by a shift reaction and a hydrogen yield is increased.

13. The device according to claim 7, wherein said reactor for water vapor reformation is a tube having an inside diameter preferably between 5 to 30 mm.

14. The device according to claim 7, further comprising ribs formed an outer wall of said reactor for water vapor reformation; and

a supply device through which a hot exhaust from the motor vehicle can be guided to said outside wall of said reactor.

15. The device according to claim 12, wherein an evaporation stage, said main reaction stage, and said aftertreatment stage of said reactor are heated independently from one another for water vapor reformation.

16. The device according to claim 7, wherein said reactor comprises an evaporator stage for partial oxidation, said evaporator stage being located upstream of a main reaction stage in which partial oxidation on said catalyst occurs.

17. The device according to claim 16, further comprising an electrical heater for heating said evaporator stage.

18. The device according to claim 7, further comprising a feed device with which product gases produced during said partial oxidation on said catalyst are guided against an outer wall of said reactor.

19. The device according to claim 16, further comprising a feed device with which product gas is produced during said partial oxidation on said catalyst are guided against an outer wall of said reactor.

20. The device according to claim 7, further comprising an aftertreatment stage provided in said reactor for partial oxidation downstream from a main reaction stage in which said partial oxidation occurs on the catalyst; and

wherein in said aftertreatment stage one of a resulted CO is reduced by a shift reaction and a further reaction with residual hydrocarbons with water vapor occurs.

21. The device according to claim 16, further comprising an aftertreatment stage provided in said reactor for partial

oxidation downstream from a main reaction stage in which said partial oxidation occurs on the catalyst; and

wherein in said aftertreatment stage one of a resulted CO is reduced by a shift reaction and a further reaction with residual hydrocarbons with water vapor occurs.

22. The device according to claim 7, wherein said reactor for partial oxidation is a tube having an inside diameter of preferably between 5 to 50 millimeters.

23. The device according to claim 16, wherein said reactor for partial oxidation is a tube having an inside diameter of preferably between 5 to 50 millimeters.

24. The device according to claim 7, wherein said reactor for partial oxidation and/or water vapor reformation is a cylindrical block having a plurality of axial holes, said catalyst being located in at least one of said axial holes and said evaporator stage constituting at least one further of said axial holes.

25. The device according to claim 24, wherein a heating cartridge is located in a central one of said axial holes in said reactor.